Message

From: Chuhui Zhang [czhang24@ncsu.edu]
Sent: 3/30/2018 3:04:18 PM
To: Detlef R. U. Knappe [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user17c3f77b]
CC: McCord, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=McCord, James]; Hopkins, Zachary [zrhopkin@ncsu.edu]; Strynar, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]; Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]; Nadine Kotlarz [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userc79d3fb6]
Subject: Re: Chuhui's TOP assay
Attachments: TOP Assay 3-30-18.pptx

Hi all,

Please see attached slides for TOP assay data of the two waters.

James, thank you for offering the help and we can talk about running TOF next week!

Chuhui

On Fri, Mar 30, 2018 at 10:53 AM, Detlef Knappe <knappe@ncsu.edu> wrote:

> Chuhui,
> Can you send the two figures for Huske and Wilmington water?
> James,
> It would be great if you can squeeze in TOF/Orbi analysis.
> Detlef

On Fri, Mar 30, 2018 at 10:21 AM, McCord, James <mccord.james@epa.gov> wrote:

> I interesting in seeing the results. If everything looks good I can probably get something running on the TOF or the Orbi next week.
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> --
>
> James McCord
>
> **From:** Detlef Knappe [mailto:knappe@ncsu.edu]
> **Sent:** Friday, March 30, 2018 9:51 AM
> **To:** Hopkins, Zachary <zrhopkin@ncsu.edu>; Strynar, Mark <Strynar.Mark@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; McCord, James <mccord.james@epa.gov>; Zhang, Chuhui <czhang24@ncsu.edu>; Nadine Kotlarz <nkotlar@ncsu.edu>
> **Subject:** Chuhui's TOP assay
>
> Hi all,

Chuhui just showed me some important results. She analyzed 2014 Huske Dam and 2015 Wilmington water samples with the TOP assay. There are quite a few oxidizable precursors in both water samples, including precursors to GenX and other ethers. In the Wilmington water sample, the GenX concentration quadrupled after the TOP assay! And C5 went up dramatically!

I would like Chuhui to rerun her samples as follows:

1. Our existing two triple quad methods for the legacy compounds and the ethers. Right now, she did not capture PFMOAA, PFO2HxA, Nafion by-product, C7, and others because a separate method was set up for the TOP assay. Zack or Nadine, can you introduce Chuhui to your two triple quad methods - the ones for legacy compounds and ethers? I would prefer if everyone uses the same analytical approach.

2. Non-targeted on TOF (or Orbi?) on both MeOH and MeOH/NH4OH extracts of the Huske and Wilmington samples before and after TOP assay if that is OK.

3. We should then sit down and discuss the data and next steps (current Wilmington drinking water, groundwater, Marshwood Lake water)

Chuhui's data also show that at least some of the ether compounds are terminal end products in the TOP assay. So far, she tested GenX, PFMOBA, and PFMOPrA. The latter two are the linear Synquest compounds. Hopefully, she can also evaluate the other ethers individually (PFMOAA, Nafion by-products, etc.) in future TOP experiments.

Best,

Detlef